

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Piedmont Regional Office**

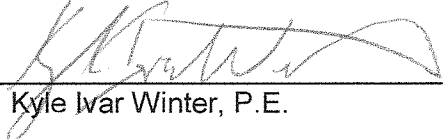
**STATEMENT OF LEGAL AND FACTUAL BASIS**

Virginia Electric and Power Company – Chesterfield Power Station  
Chesterfield, Virginia  
Permit No. PRO-50396

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Virginia Power has applied for a renewal of the Title V Operating Permit for its Chesterfield facility. The Department has reviewed the application and has prepared a draft renewal of the Title V Operating Permit.

Engineer/Permit Contact:  Date: 10/29/2014  
Richard Stone  
(804) 527-5088

Air Permit Manager:  Date: 10/29/2014  
James E. Kyle, P.E.

Deputy Regional Director:  Date: 10/30/2014  
Kyle Ivar Winter, P.E.

## **FACILITY INFORMATION**

### Permittee

Virginia Electric and Power Company  
5000 Dominion Boulevard  
Glen Allen VA 23060

### Facility

Chesterfield Power Station  
500 Coxendale Road  
Chesterfield VA 23836

County-Plant Identification Number: 041-00002

## **SOURCE DESCRIPTION**

NAICS Code: 221112 – Electrical Power Generation

The Chesterfield Power Station burns fossil fuel for the generation of electrical power. The facility operates four pulverized coal, tangentially-fired dry bottom boilers (ES-3, ES-4, ES-5, ES-6) and two General Electric combined cycle combustion turbines (ES-7, ES-8). Three of the boilers, ES-3, ES-4 and ES-6, burn coal and no. 2 fuel oil. Boiler ES-5 burns coal, no. 2 fuel oil and used oil. The two combustion turbines, ES-7, ES-8, burn natural gas, no. 2 fuel oil and coal gas.

Boilers ES-3, ES-4 and ES-5 each have an electrostatic precipitator (ESP) to control particulate emissions and Unit ES-6 has a baghouse to control particulate emissions. Boilers ES-4, ES-5 and ES-6 each have a selective catalytic reduction (SCR) system to control nitrogen dioxide (NOx) emissions. Boilers ES-3, ES-4 and ES-5 have a combined flue gas desulfurization (FDG) unit to control sulfur dioxide (SO<sub>2</sub>) emissions. Boiler ES-6 has an FGD to control SO<sub>2</sub> emissions. The combustion turbines, ES-7, ES-8, use steam injection to control NOx emissions.

The facility operates coal and ash handling systems (ES-9a, ES-9a(VF), ES-9c, ES-9cR, ES-9c(S), ES-9c(T), ES-9c(P-1), ES-9c (CS-1), ES-9d, ES-9e, ES-9f, ES-10), and limestone and gypsum handling systems (ES-11a, ES-11b (LS-1), (LS-2), ES-11b (LS-3), ES-11b (LS-4), ES-11b (VF-1), ES-11b (VF-2), ES-11b (VR-3), ES-11c, ES-11d, ES-12 (GYP-1a), ES-12 (GYP-1b), ES-12 (GYP-2), ES-12 (GYP-3), ES-12 (GYP-4), ES-12 (GYP-5), ES-12 (PR), ES-13, ES-14a, ES-14b, ES-14c, ES-14d).

The facility has the following fuel burning equipment: an emergency combustion turbine (IS-2), four emergency generators (IS-38, QWP-5, QWP-6, EDG-78), a fire pump (FP-6), 140 Thaw Shed heaters (IS-30) and a pipeline heater (IS-4).

The facility also has non-halogenated cold solvent degreasers (IS-45).

Nomenclature:

In the text of the Title V permit, the fuel burning equipment is described as follows:

ES-3	Emission Unit ID # ES-3 or boiler three (3) or Unit 3
ES-4	Emission Unit ID # ES-4 or boiler four (4) or Unit 4
ES-5	Emission Unit ID # ES-5 or boiler five (5) or Unit 5
ES-6	Emission Unit ID # ES-6 or boiler six (6) or Unit 6
ES-7	Emission Unit ID # ES-7 or combustion turbine (7) or Unit 7
ES-8	Emission Unit ID # ES-8 or combustion turbine (8) or Unit 8

The facility is a Title V major source of PM-10, nitrogen dioxide, sulfur dioxide, carbon monoxide, and volatile organic compounds. The Chesterfield Power Station is located in an attainment area for all pollutants, and is a PSD major source. There are five active permits for the Chesterfield Power Station. There is a July 18, 2012 (50396-34) state operating permit that contains all the non-acid rain requirements of the previous permits, a May 4, 2011 (50396-32) new source review permit to install a refined coal system, a January 1, 2008 (50396-22) Title IV Phase II acid rain permit, a June 13, 2008 (50396-27) new source review permit to segregate the coal and a January 8, 2004 (50396-8) new source review permit to install a second 1,000 ton/hr crusher. There is also an April 2003 EPA Consent Decree.

The Title V permit was originally issued on November 3, 2003 (50396-1) and was amended on January 13, 2004 (50396-9) and amended again on October 18, 2005 (50396-13).

On May 1, 2008 (50396-26), Dominion submitted an application for the renewal of the Title V permit. The Title V permit application for renewal was considered timely and deemed administratively complete on May 30, 2008. Additionally, Dominion submitted a request dated January 28, 2010 to significantly amend the October 18, 2005 amended Title V permit.

Active permits

Permit issued on July 18, 2012 (50396-34): This is a state operating permit that contains all of the requirements of the previous permits, except the acid rain requirements. The purpose of the SOP was to clarify the conditions for the emergency combustion turbine and the flue gas desulfurization system (FGD).

Permit issued on May 4, 2011 (50396-32): This is a new source review permit to install a refined coal system.

Permit issued on June 13, 2008 (50396-27): This is a new source review permit to modify and operate the coal handling equipment in support of the coal segregation practices after the installation of the unit 6 flue gas desulfurization system (FGD).

Permit issued on January 1, 2008 (50396-22): This is a Title IV Phase II acid rain permit. The permit contains SO<sub>2</sub> allowances and NO<sub>x</sub> limits.

Permit issued on January 8, 2004 (50396-8): This permit is a new source review permit to install a second 1,000 ton/hr crusher. Although the two crushers were listed in the SOP, the requirements for controls, emissions limits and NSPS were retained in the new source review permit. That January 8, 2004 permit is still active.

Historical Permits (superseded by active permits)

Permit issued on August 31, 2010 (50396-31): This was a state operating permit that contains all of the requirements of the previous permits, except the acid rain requirements. The purpose of the SOP was to upgrade and operate a coal (rail car) unloading system.

Permit issued on January 27, 2009 (50396-25): This was a modification of the state operating permit to include the requirements of the coal crusher permit issued on January 8, 2004 (50396-8) and to allow monitoring in the duct prior to the wet scrubber rather than the new no. 6 stack.

Permit issued on September 21, 2006 (50396-17): This was a permit to modify the FRP on the chimney liner of new stack no. 6.

Permit issued on March 29, 2006 (50396-15): This was a new source review permit to add a front end loader to the synfuel plant.

Permit issued on December 22, 2005 (50396-14): This was a new source review permit to install fiberglass reinforced plastic (FRP) on the chimney liner of the new stack no. 6.

Permit issued on November 16, 2005 (50396-12): This was a new source review permit to modify the synfuel plant.

Permit issued on October 18, 2005 (50396-13): This was a minor modification to the Title V permit to include the NOx budget requirements.

Permit issued on December 7, 2004 (50396-11): This was a new source review permit for the synfuel plant.

Permit issued on January 13, 2004 (50396-9): This was an administrative amendment to the Title V permit for administrative changes.

Permit issued on January 8, 2004 (50396-8): This was a new source review permit to install a second 1,000 ton/hr coal crusher.

Permit issued on November 3, 2003 (50396-1): This was the original Title V permit. The expiration date was November 3, 2008.

Permit issued on March 10, 2003 (50396-7): This was a new source review permit to construct and operate one new 1,000 ton/hour coal crusher.

Permit issued on November 25, 2002 (50396-6): This was a renewal of the Title IV acid rain permit.

Permit issued on February 9, 2001 (50396-2): This was a modification to a state operating permit that contained all of the requirements of the previous permits, except the acid rain requirements. The purpose of the SOP was to install selective catalytic reduction (SCR) equipment to control NOx emissions on units ES-4, ES-5 and ES-6. This equipment was installed as a pollution control project (PCP), which was exempt from new source review, although there was an increase in PM10 emissions from the use of the SCRs. The original state operating permit was issued on August 27, 1996. The purpose of the original permit was to make the summer time (June, July and August) nitrogen oxide reductions federally and state enforceable.

Permit issued on September 16, 1998: This was a modification to a state operating permit that increased the ash utilization project throughput. This permit increased the ash throughput from 500,000 tons/yr to 2,000,000 tons/yr.

Permit issued on December 9, 1997: This was the original Title IV acid rain permit.

Permit issued on July 16, 1997; This was a modification to a state operating permit that increased the ash throughput from 180,000 tons/yr to 200,000 tons/yr. This permit increased the emissions above the modification emissions level. The permitted emissions for the ash reutilization project for this modification were 24.6 tons/yr TSP and 7.9 tons/yr PM10. The emissions increases were more than the modification emissions levels listed in 9 VAC 5-80-11 E.

Permit issued on February 18, 1997: This was an administrative amendment to a state operating permit for the initial ash reutilization project. The uncontrolled emissions were greater than the modification emissions level listed in 9 VAC 5-80-11 E.

Permit issued on August 27, 1996: This was the original state operating permit for Virginia Power Chesterfield. The permit included all existing source requirements, new source requirements, and the requirements of a PSD permit. The facility wide permit was used to enforce a NO2 reduction. The reduction was used as a growth cap for the Richmond Area Nonattainment Area.

Permit issued on September 24, 1993: This permit was a "stand alone" minor NSR permit that allowed the facility to add an oil gun to boiler number 5. The oil gun is used to fire waste oil into the boiler. The permit allows only waste oils generated by Virginia Power to be fired in the boiler.

## **COMPLIANCE STATUS**

The facility is inspected a minimum of once a year. The facility was last inspected on May 30, 2013 (partial compliance evaluation with a site visit) and the inspector found the facility in compliance. In addition, all reports and other data required by permit conditions or regulations,

which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment: Boilers</b>							
ES-3	CS0	Combustion Engineering Tangentially Fire Coal Boiler Equipped with Startup Burners (1952) Coal – primary fuel No. 2 Oil – standby fuel	1155 x 10 <sup>6</sup> Btu/hr	Environmental Elements Corporation Electrostatic Precipitator, Staged Combustion Coal Burners, Flue Gas Desulfurization system (FGD)	ESP-3, FGD-0	PM-10, SO <sub>2</sub>	State Operating Permit July 18, 2012; Acid Rain Permit January 1, 2008
ES-4	CS0	Combustion Engineering Tangentially Fire Coal Boiler Equipped with Startup Burners (1960) Coal – primary fuel No. 2 Oil – standby fuel	1761x 10 <sup>6</sup> Btu/hr	American Air Filter Electrostatic Precipitator, Staged Combustion Coal Burners, Selective Catalytic Reduction (SCR), FGD	ESP-4, SCR-4, FGD-0	PM-10, NO <sub>x</sub> , SO <sub>2</sub>	State Operating Permit July 18, 2012; Acid Rain Permit January 1, 2008
ES-5	CS0	Combustion Engineering Tangentially Fire Coal Boiler Equipped with startup burner (1964) Coal – primary fuel No. 2 Oil – standby fuel Used Oil – standby fuel	3604x 10 <sup>6</sup> Btu/hr	UOP- Air Filter Products Divisions Electrostatic Precipitator, Staged Combustion Coal Burners, SCR, FGD	ESP-5, SCR-5, FGD-0	PM-10, NO <sub>x</sub> , SO <sub>2</sub>	State Operating Permit July 18, 2012; Acid Rain Permit January 1, 2008

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-6	EP-6	Combustion Engineering Tangentially Fire Boiler Coal Boiler Equipped with Startup Burners (1969) Coal – primary fuel No. 2 Oil – standby fuel	6650x 10 <sup>6</sup> Btu/hr	Staged Combustion Coal Burners, SCR, Baghouse (BH), Flue Gas (FGD)	SCR-6, BH-6, FGD-6	PM-10, NO <sub>x</sub> , SO <sub>2</sub>	State Operating Permit July 18, 2012; Acid Rain Permit January 1, 2008
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment: Turbines</b>							
ES-7	EP-7/8	Combustion Turbine General Electric STAG 107F (1990) Natural Gas – primary fuel No. 2 Oil – standby fuel Coal Gas – standby fuel	1980.4 Btu/hr	General Electric Steam Injection System	CD-7	NO <sub>x</sub>	State Operating Permit July 18, 2012
ES-8	EP-7/8	Combustion Turbine General Electric STAG 107F (1992) Natural Gas – primary fuel No. 2 Oil – standby fuel Coal Gas – standby fuel	1980.4 Btu/hr	General Electric Steam Injection System	CD-8	NO <sub>x</sub>	State Operating Permit July 18, 2012 Acid Rain Permit January 1, 2008
<b>Coal and Flyash Processing</b>							
ES-9a	EP-9	One (1) Bottom Discharge Coal Unloader equipped with a fixed grizzly screen	2,500 Tons/hr	Air-Cure Inc., Model Number 676-428RF Baghouse	BH-9a	PM-10	State Operating Permit July 18, 2012



Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-9a(VF)	EP-9	Two (2) vibrating feeders	2,500 tons/hr combined	Air-Cure Inc., Model Number 676-428RF Baghouse	BH-9a	PM-10	State Operating Permit July 18, 2012
ES-9c	NA	Coal Conveying System: Continental Conveyors	400-1200 Tons/hr	NA	NA	PM-10	State Operating Permit July 18, 2012
ES-9c (R)	NA	One (1) Coal conveyor (Conveyor R)	1,200 tons/hr	Wet Spray	NA	PM-10	New Source Review Permit, June 13, 2008
ES-9c (S)	NA	One (1) coal feeder (Feeder S)	400 tons/hour	Total Enclosure	NA	PM-10	New Source Review Permit June 13, 2008
ES-9c (T)	NA	One (1) Coal Conveyor (Conveyor T), equipped with a dozer trap	1,200 tons/hr	Dozer Trap - Total Enclosure Conveyor T - Wet Spray	NA	PM-10	New Source Review Permit June 13, 2008
ES-9c (P-1)	NA	One (1) coal feed plow (Feed Plow P-1)	1,400 tons/hr	Partial Enclosure	NA	PM-10	Minor NSR permit June 13, 2008
ES-9c (C-1)	NA	One (1) coal conveyor (Conveyor C-1)	1,400 tons/hr	Partial Enclosure and Wet Spray	NA	PM-10	New Source Review Permit June 13, 2008
ES-9c (CS-1)	NA	One (1) radial stacker (Radial Stacker CS-1)	1,400 tons/hr	Partial Enclosure	NA	PM-10	New Source Review June 13, 2008
ES-9d	NA	Coal Pile	750,000 Tons	NA	NA	PM-10	State Operating Permit July 18, 2012
ES-9e	NA	Coal Crushing Operations: One (1) Pennsylvania	1,000 Tons/hr	Full Enclosure	NA	PM-10	New Source Review Permit

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		Crusher Corporation Model TKK 36 x 68 Granulator (2003)					January 8, 2004
ES-9f	NA	Coal Crushing Operations: One (1) Pennsylvania Crusher Corporation Model TKK 36 x 68 Granulator (2003)	1,000 Tons/hr	Full Enclosure	NA	PM-10	New Source Review Permit January 8, 2004
ES-10	NA	Fly Ash Reutilization Operations	500,000 Tons/yr	NA	NA	PM-10	State Operating Permit July 18, 2012
<b>Limestone Handling, Gypsum Conveying and Limestone Crushing</b>							
ES-11a	NA	Limestone Receiving Operations One (1) Equilibrium Crane with Clam Shell Dump into Limestone Hopper	750 TPH	Wet Suppression	NA	PM-10	Consent Decree October 10, 2003
ES-11b (LS-1, 2)	NA	Limestone conveyors LS-1, LS-2	750 TPH	Full enclosure	NA	PM-10	Consent Decree October 10, 2003
ES-11b (LS-3)	NA	Limestone conveyor LS-3	300 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-11b (LS-4)	NA	Limestone conveyor LS-4	300 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003

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Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-11b (VF-1)	NA	Vibrating Feeder VF-1	300 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-11b (VF-2)	NA	Vibrating Feeder VF-2	300 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-11b (VF-3)	NA	Vibrating Feeder VF-3	300 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-11c	NA	Limestone Grinding Operations Two (2) METSO Ball Mills	Ball Mills 45 TPH (dry) each TPH	NA	NA	PM-10	Consent Decree October 10, 2003
ES-11d	NA	Limestone Storage Pile	8,000 Tons	NA	NA	PM-10	Consent Decree October 10, 2003
ES-12 (GYP-1a)	NA	Gypsum Conveyor GYP-1a	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-12 (GYP-1b)	NA	Gypsum Conveyor GYP-1b	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-12 (GYP-2)	NA	Gypsum Conveyor GYP- 2	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-12 (GYP-3)	NA	Gypsum Conveyor GYP-3	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003

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Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-12 (GYP-4)	NA	Gypsum Conveyor GYP-4	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-12 (GYP-5)	NA	Gypsum load out Conveyor GYP-5	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-12 (PR)	NA	Gypsum Reclaimer	300-600 TPH	Full enclosure or equivalent	NA	PM-10	Consent Decree October 10, 2003
ES-13	EP-13	Limestone Crushing Operations One (1) Grinder associated with SO3 Abatement system	12.5 THH	Fabric Filter	FF-13	PM-10	Consent Decree October 10, 2003
ES-14a	EP-14a	S-Sorb Receiving Silo (190 tons storage capacity)	50 tons/hr	Fabric filter	FF-14a	PM-10	New Source Review Permit May 4, 2011
ES-14b	EP-14b	S-Sorb Active Silo (150 tons storage capacity) and fabric filter	50 tons/hr	Fabric filter	FF-14b	PM-10	New Source Review Permit May 4, 2011
ES-14c	NA	Sorbent Transfer Conveyor	12 tons/hr	Full enclosure or equivalent	NA	PM-10	New Source Review Permit May 4, 2011
ES-14d	NA	S-Sorb Transfer Conveyor	12 tons/hr	Full enclosure or equivalent	NA	PM-10	New Source Review Permit May 4, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Emergency Combustion Turbine:</b>							
IS-2	IS-2	Solar Turbines Inc. Combustion Turbine Emergency Generator (pre-2006)	4.7 x 10 <sup>6</sup> Btu/hr		NA		State Operating Permit July 18, 2012
<b>Emergency Diesel Generators</b>							
IS-38	IS-38	Cummins Emergency Diesel Generator (2007)	317 hp		NA		Exemption Letter January 23, 2009
Quench Water Pump - 5	QWP -5	Cummins Emergency Diesel Quench Water Pump (October, 2006)	152 hp	NA	NA		NA
Quench Water Pump - 6	QWP -6	Cummins Emergency Diesel Quench Water Pump (October, 2006)	152 hp	NA	NA		NA
EDG -78	EDG-78	Cummins Emergency Diesel Generator (1993)	750 hp	NA	NA		NA
<b>Other Fuel Burning Equipment:</b>							
Fire Pump - 6	FP-6	John Deere Fire Pump (2007)	290 hp	NA	NA		NA
IS-30	TSH	Thaw Shed Heaters (quantity 140) (propane)	0.275 mmBtu/hr (each)	NA	NA		NA

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
IS-4	IS-4	Thermoflux Inc. pipeline heater (natural gas) 1993	4.25 mmBtu/hr	NA	NA		NA
<b>Degreasing Operation:</b>							
IS-45	NA	Non-Halogenated Cold Solvent Degreasers	Various	NA	NA	VOC	NA

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

## EMISSIONS INVENTORY

A copy of the 2012 annual emission update is attached as Attachment A. Emissions are summarized in the following tables.

### 2012 Actual Facility Wide Emissions (From the 2012 CEDs reports)

Criteria Pollutant	Criteria Pollutant Emission in
CO	388.7
NOx	2,694.1
PM-10	509.8
PM-2.5	122.2
SO <sub>2</sub>	1,229.9
VOC	57.8

### 2012 Actual Facility Wide Hazardous Air Pollutant Emissions (From the 2012 CEDs reports)

Pollutant	Hazardous Air Pollutant Emission in Tons/Year
Acetaldehyde (ACETA)	0.8
Arsenic (ASC)	0.9
Benzene (BZ)	1.1
Benzyl Chloride (BZCL)	0.5
Chlorine (CL)	0.000
Methyl Chloride (CLMT)	0.2
Cyanide (CNC)	1.8
Chromium (CRC)	4.8
Formaldehyde (FORM)	7.2
Hydrochloric Acid (HCL)	227.5
Hydrogen Fluoride (HF)	27.3
Isophorone (ISPHR)	0.4
Methyl Ethyl Ketone (MTETN)	0.3
Ammonia (NH3)	7.9
Nickel (NIC)	4.5
Lead (PB)	0.041
Propionaldehyde (PRPYD)	0.3
Selenium (SEC)	0.9
Toluene (TOLU)	1.5
Methylene Chloride (MC)	0.2

Pollutant	Hazardous Air Pollutant Emission in Tons/Year
Manganese (MNC)	0.1
Phosphorus (P-PT)	0.0
Styrene (STYR)	0.02
Vinyl Acetate (VA)	0.005
Xylene (XYLS)	0.6
TOTAL:	288.9

## EMISSION UNIT APPLICABLE REQUIREMENTS

### State Operating Permit and New Source Review Requirements

Most of the conditions in the Title V permit are requirements to comply with the new source review permits issued on May 4, 2011 (50396-32), June 13, 2008 (50396-27), January 8, 2004 (50396-8); the state operating permit issued on July 18, 2012 (50396-34) and the acid rain permit issued on January 1, 2008 (50396-22). There is also an April 2003 EPA Consent Decree.

There are a number of federal regulations that apply to some of the units at the Chesterfield Power Station. These regulations and units are:

- < 40 CFR Part 60, Subpart A – General Provisions. This standard applies to the Combustion Turbines (Units ES-7 and ES-8).
- < 40 CFR Part 60, Subpart Y - Standards of Performance (NSPS) for Coal Preparation Plants. This standard applies to the Coal Handling System (Units ES-9a, ES-9c, ES-9d, ES-9e, ES-9f and ES-10).
- < 40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines. This standard applies to the Combustion Turbines (Units ES-7 and ES-8).
- < 40 CFR Part 60, Subpart OOO – Standards of Performance (NSPS) for Nonmetallic Mineral Processing Plants. This standard applies to the gypsum and limestone grinder/crushers and any accompanying screens (Units ES-11a, ES-11b, ES-11c, ES-11d, ES-12 and ES-13).
- < 40 CFR Part 60, Subpart IIII – Standards of Performance (NSPS) for Stationary Compression Ignition Internal Combustion Engines (RICE). This standard applies to the Cummins emergency diesel generator (Unit IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), and the fire pump (FP-6).
- < 40 CFR Part 61 - Asbestos. Details requirements for asbestos removal at demolition and renovation activities. If such activities should occur, the facility shall comply with the applicable provisions. This standard applies facility wide.



- < 40 CFR Part 63 – Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (MACT) for Source Categories for Stationary Reciprocating Internal Combustion Emissions (RICE) Units. This standard applies to the Solar Turbine emergency generator (Unit IS-2), the Cummins emergency diesel generator (Unit IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), the Cummins emergency generator (EDG-78) and the fire pump (FP-6).
- < 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) Requirements. Details requirements for Compliance Assurance Monitoring. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8).
- < 40 CFR Part 68 - Chemical Accident Prevention Provisions. Describes requirements for Risk Management Plans. This standard applies facility wide.
- < 40 CFR Part 70 - Operating Permits Regulation. Institutes operating permit requirements. This standard applies facility wide.
- < 40 CFR Part 72, Subparts A, B, C, D, E, and F - Acid Rain Program. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 73, Subparts B, C, and D - Acid Rain Allowances. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 75, Subparts A, B, C, D, E, F, and G - Acid Rain Program Monitoring Requirements. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 76 - Acid Rain Program, Phase II NO<sub>x</sub> Limitations. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 77 - Acid Rain Program, Excess Emissions. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 78 - Acid Rain Program Appeal Procedures. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).
- < 40 CFR Part 82 - Protection of Stratospheric Ozone - Subpart B - Servicing of Motor Vehicle Air Conditioners. This standard applies facility wide.
- < 40 CFR Part 82 - Protection of Stratospheric Ozone - Subpart F - Recycling and Emissions Reduction. This standard applies facility wide.
- < 40 CFR 97 - NO<sub>x</sub> Budget. Outlines emissions limitations and compliance schedules for NO<sub>x</sub> reductions. This standard applies to the four boilers and one combustion turbine (Units ES-3, ES-4, ES-5, ES-6 and ES-8A).

Other applicable requirements that apply to the source are the following provisions of the Commonwealth of Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

9 VAC 5 Chapter 40	Existing Stationary Sources
9 VAC 5 Chapter 40	Article 1: Visible Emissions and Fugitive Dust/Emissions
9 VAC 5 Chapter 40	Article 8: Emission Standards for Fuel Burning Equipment
9 VAC 5 Chapter 50	New and Modified Stationary Sources
9 VAC 5 Chapter 50	Article 1: Visible Emissions and Fugitive Dust/Emissions
9 VAC 5 Chapter 80	Part I: Permits for New and Modified Sources
9 VAC 5 Chapter 80	Article 1: Federal Operating Permits for Stationary Sources
9 VAC 5 Chapter 80	Article 2: Permit Program Fees for Stationary Sources
9 VAC 5 Chapter 80	Article 4: Insignificant Activities
9 VAC 5 Chapter 80	Article 5: State Operating Permits
9 VAC 5 Chapter 80	Article 8: Permits for Major Stationary Sources and Major Modifications Locating in Prevention of Significant Deterioration Areas

a. Generally Applicable Requirements

Generally applicable requirements which apply to the source are the following provisions of the Commonwealth of Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution:

9 VAC 5 Chapter 170	General Administration
9 VAC 5 Chapter 20	Variance, circumvention, source registration, maintenance practices, and start-up, shutdown, and malfunction procedures
9 VAC 5 Chapter 80	Article 2: Permit Program Fees for Stationary Sources
9 VAC 5 Chapter 140	Emissions trading

Emission Units (emergency generators, heaters, degreasers)

The Solar Turbine emergency generator (Unit IS-2) is an emission unit because it has an applicable requirement (permit conditions) in the July 18, 2012 (50396-34) SOP.

The Cummins emergency generator (IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), the Cummins emergency generator (EDG-78) and the fire pump (FP-6) are emission units because these units are subject to MACT Subpart ZZZZ. The Cummins emergency generator (IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), and the fire pump (FP-6) are also subject to NSPS Subpart IIII. The Solar Turbine emergency generator (IS-2) is also subject to MACT Subpart ZZZZ. These emission units are also subject to the state source regulations. The only state requirement is the opacity standard which is included in the Title V permit.

The pipeline heater (IS-4) and the Thaw shed heaters (IS-30) are emission units because these units are subject to MACT Subpart DDDDD as process heaters that are located at a major source of HAPs. The pipeline heater (IS-4) and the Thaw shed heaters (IS-30) are also subject to the state source regulations. The only state requirement is the opacity standard which is included in the Title V permit.

The non-halogenated cold solvent degreasers (IS-45) are emission units because these units are a part or an activity of an affected source that emits or has the potential to emit any regulated air pollutant. The non-halogenated cold solvent degreasers (IS-45) are not an insignificant activity if it (the degreaser) has any applicable requirement unless those requirements apply identically to all emission units at the facility. (9 VAC 5-80-370 – Article 3 – Title V Permit for Acid Rain Sources).

The solvent metal cleaning regulation (Rule 4-24) applies to the degreasers (IS-45) and does not apply identically to all of the emissions units at the facility, so the degreasers are not an insignificant activity under Title V.

NSPS Subpart IIII and MACT Subpart ZZZZ – Emergency Generators

NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)

This Subpart applies to owners or operators of stationary CI ICE units that commenced construction after July 11, 2005 where the stationary CI ICE was manufactured after April 1, 2006.

The Solar Turbine emergency generator (IS-2) and the Cummins emergency generator (EDG-78) are exempt from NSPS Subpart IIII because these CI ICE units were constructed prior to July 11, 2005.

The Cummins emergency generator (IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), and the fire pump (FP-6) are not exempt from NSPS Subpart IIII because these CI ICE units were constructed after July 11, 2005.

MACT, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

This Subpart sets national emission and operating limits for hazardous air pollutants (HAPs) emitted from RICE units at major and area (minor) sources of HAPS.

EPA promulgated a NESHAP for new, existing and reconstructed stationary RICE greater than 500 horse power (hp) at a major HAP source. EPA defined existing as construction before 12/19/2002. On January 18, 2008, EPA made the Subpart applicable to new and reconstructed RICE units located at an area HAP source and for new and reconstructed stationary RICE with a site rating less than 500 Hp that are located at a major HAP source. EPA defined existing as construction before 06/12/1996. On March 3, 2010, EPA made the Subpart applicable to existing RICE units located at an area HAP source or units that have a site rating of less than 500 hp and are located at a major HAP source. EPA defined existing as construction before 06/12/2006.

The Solar Turbine emergency generator (IS-2) and the Cummins emergency generator (EDG-78) are not exempt from MACT Subpart ZZZZ because these RICE units were constructed prior to 12/19/2002 (existing) and have a 500 or greater horse power (hp) rating at a major source.

The Cummins emergency generator (IS-38), the water pump emergency generator (QWP-5), the water pump emergency (QWP-6), are not exempt from MACT Subpart ZZZZ because these RICE units were constructed before 06/12/2006 (existing) and have a 500 or less horse power (hp) rating at a major HAP source.

The fire pump (FP-6) is not exempt from MACT, Subpart ZZZZ because this RICE unit was constructed after 06/12/1996 (new) and has a 500 or less horse power (hp) rating at a major HAP source.

The fuel oil storage tank (IS-5) is now classified as an insignificant emissions unit in accordance with 9 VAC 5-80-710 B. The refined coal system (ES-14) is an insignificant emissions unit in accordance with 9 VAC 5-80-710 B.

#### Periodic Monitoring

The permit content requirements of the regulations for federal operating permits, 9 VAC 5-80-110, state that the permit should include conditions for periodic monitoring sufficient to demonstrate that the facility is in compliance with the limits of the permit. These conditions are contained in the Title V permit and the supporting SOP and NSR permits.

DEQ did not requiring periodic opacity monitoring for the emergency generators and the heaters because these units have small capacities and use a low sulfur fuel. An exceedance of the opacity requirement is not likely.

Additional monitoring for the emergency generators that are required in MACT Subpart ZZZZ and NSPS Subpart IIII are not necessary because the MACT and NSPS were promulgated after 1992.

#### Continuous Emission Monitoring

The Chesterfield Power Station installed a dilution-extractive continuous emission monitoring system (CEM) in units ES-3, ES-4, ES-5, and ES-6. The CEMs measure effluent concentration at the inlet of the duct for SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> for units ES-3, ES-4, ES-5 and ES-6. The CEMs measure the effluent concentrations at the stack for SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> for units ES-3, ES-4, ES-5 and ES-6.

The facility also has a continuous opacity monitors (COM) for units ES-3, ES-4, ES-5 and for unit ES-6.. The opacity monitors for the common FGD system shall be located in the ductwork of each unit (units ES-3, ES-4 and ES-5) or in the ductwork for the common FDG system. The opacity monitor for unit ES-6 shall be located in the ductwork.

There is a CEM system on units ES-7 and ES-8 to measure NO<sub>x</sub> and SO<sub>2</sub>.

#### Opacity

The Title V permit contains an opacity observation requirement for the coal handling equipment (Units ES-9a, ES-9c, ES-9d, ES-9e) in permit condition number 99. The facility is required to make a periodic visual evaluation of the coal handling equipment once a week. The facility is required to take corrective action or perform a Method 9 and take corrective action, if necessary. The facility is required to document these weekly observations in a log book.

The limestone and gypsum material handling equipment (Units ES-11a, ES-11b, ES-11c, ES-11d, ES-12, ES-13) is subject to periodic monitoring requirements because the equipment is subject to opacity standards in NSPS, Subpart OOO. The periodic monitoring for these units is monthly opacity monitoring which is similar to the opacity monitoring for the coal handling units.

#### NSPS Subpart OOO - Limestone and Gypsum Material Handling Equipment

The New Source Performance Standards (NSPS) 40 CFR 60 Subpart OOO for Nonmetallic Mineral Processing Plants applies to new, modified, reconstructed facilities (after August 31, 1983) in nonmetallic mineral processing plant. The Subpart applies to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station ( 40 CFR 60.670 (a)(1)).

Dominion Chesterfield installed (after August 31, 1983) limestone and gypsum material handling equipment to support their flue gas desulfurization (FGD) unit. The material handling equipment includes a limestone grinder, two limestone ball mills in addition to conveyors, feeders and a reclaimer. Limestone and gypsum are nonmetallic minerals.

The limestone and gypsum material handling equipment are subject to NSPS, Subpart OOO because the source installed applicable equipment (grinder, conveyors, feeders) that processes nonmetallic minerals, limestone and gypsum, at a site that has a grinder after August 31, 1983. The limestone and gypsum material handling equipment are connected by the FDG unit and are considered part of the limestone gypsum material handling system. The facility would not have gypsum material handling equipment without the limestone equipment, which includes the grinder, regardless of the location of the grinder.

Dominion listed the limestone and gypsum material handling equipment at the Chesterfield facility as subject to Subpart OOO in a visible emission examination conducted on July 26 and 31, 2008.

EPA stated in a clarification of Subpart OOO (62 FR 62953 November 26, 1997) that "The clear intent of the regulation is that *all* facilities listed in section 60.670(a) are subject to subpart OOO. While subpart OOO affected operations typically have crushers or grinding mills located at or near the beginning of the nonmetallic mineral processing line, this is not always the case (e.g., some plants may convey, screen or otherwise process materials without first utilizing a crusher located in the plant). Therefore, with this document, the EPA is clarifying that as long as crushing or grinding occurs anywhere at a nonmetallic mineral processing plant, *any affected facility listed in § 60.670(a) is subject to subpart OOO regardless of its location within the plant.*"

A nonmetallic mineral processing plant is any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, Portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c). (40 CFR 60.671). Nonmetallic minerals include limestone and gypsum (40 CFR 60.671).

In a letter to Cathy Taylor of Dominion on October 16, 2014, the Environmental Protection Agency (EPA) said the "gypsum handling equipment at Chesterfield is subject to Subpart OOO." EPA said "When determining the applicability of Subpart OOO, EPA first looks to determine whether the facility meets the definition of a "nonmetallic mineral processing plant." We determine whether there is crushing or grinding of any nonmetallic mineral consistent with the definition in §60.671. If crushing or grinding of a nonmetallic mineral occurs anywhere at the facility then each affected facility listed in §60.670(a) is subject to Subpart OOO regardless of its location within the plant. EPA clarified this point in a November 26, 1997 Federal Register notice (62 FR 62953 11/26/97).

#### Compliance Assurance Monitoring (CAM)

The CAM plan for the operation of the electrostatic precipitators (ESPs) on Units ES-3, ES-4 and

ES-5 and the baghouse on Unit ES-6 are provided in Condition III. E. There is also a CAM plan in the attachments.

Limestone Handling Equipment, Gypsum Conveying System and Limestone Crushing Operations (Units ES-11a, ES-11b, ES-11c, ES-11d, ES-12, ES-13) – Consent Decree

The Title V permit provides the requirements for the operation of the limestone and gypsum operation at the facility. The Consent Decree, in the Resolution of Civil Claims (XIV), No. 118, provides an exclusion from new source review permitting for any units that are required under the Consent Decree.

Dominion installed nitrogen dioxide (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) controls at the Chesterfield Power Station (50396) as a part of the April 2003 Consent Decree between Dominion and EPA (US v. Virginia Electric and Power Co., Civil Action No. 03-CF-517A, 10-10-2003).

For the NO<sub>x</sub> controls, Dominion installed one selective catalytic reduction (SCR) unit (SCR-4) on boiler 4, one SCR unit (SCR-5) on boiler 5 and one SCR unit (SCR-6) on boiler 6.

For the SO<sub>2</sub> control, Dominion installed one flue gas desulfurization unit (FDG-0) on boilers 3, 4, 5 and one flue gas desulfurization unit (FDG-6) on boiler 6.

Under the terms of the Consent Decree, paragraph 118, any unit modification (including air pollution control projects) that were required by the Consent Decree were exempt from new source review permitting, including Article 6 (9 VAC 5-80-1100). The installation of the FDG units and the limestone (scrubber building) and the gypsum (gypsum building) material handling equipment were included in this exemption.

Title V Permit Requests

The Title V permit contains requirements that fulfill the following permit requests:

On June 28, 2006 (50396-16), Dominion requested that DEQ place the requirements for a second coal crusher from a NSR permit issued on January 1, 2008 into the Title V. The coal crusher requirements were placed in the state operating permit (SOP) issued on January 27, 2009 (50396-25), which was superseded by the SOP issued on August 31, 2010 (50396-31). The August 31, 2010 (50396-31) SOP was superseded by the SOP issued on July 18, 2012 (50396-34). These requirements are included in Condition V. A. Nos 71, 75 and 76 of the Title V permit. The Department of Environmental Quality (DEQ) withdrew this request on November 1, 2012. DEQ placed these requirements in a request submitted by Dominion on September 12, 2012 (50396-36) to include the conditions concerning a refined coal operation from the new source review permit issued on May 4, 2011 (50396-31) in the Title V permit.

On June 19, 2007 (50396-21), Dominion requested that DEQ place the requirements of the Clean Air Interstate Rule (CAIR) into the Title V. On July 11, 2008 the U.S. Court of Appeals

for the District of Columbia vacated CAIR in North Carolina v EPA, D.C. Cir. No. 05-1244. On December 23, 2008 the U.S. Court of Appeals for the District of Columbia reversed its previous decision about the vacated CAIR program and remanded the CAIR program to EPA. The reversal and remand to EPA means the CAIR program remains in effect. The requirements for CAIR are included in Condition XVI of the Title V permit. The CAIR permit application (Appendix A in the Title V permit) is the CAIR permit.

On December 3, 2007 (50396-24), Dominion requested that DEQ allow the continuous opacity monitor to be placed in the ductwork prior to the wet scrubber for unit ES-6. This requirement was placed in the SOP issued January 27, 2009 (50396-25), which was superseded by the SOP issued on August 31, 2010 (50396-31). The August 31, 2010 (50396-31) SOP was superseded by the SOP issued on July 18, 2012 (50396-34). These requirements are included in Condition III. B. no. 28 of the Title V permit.

On May 1, 2008 (50396-26), Dominion submitted an application for the renewal of the Title V permit. The Title V permit application for renewal was considered timely and deemed administratively complete on May 30, 2008. Additionally, Dominion submitted a request dated January 28, 2010 to significantly amend the October 18, 2005 amended Title V permit.

On June 21, 2010, Dominion requested that DEQ place the requirements for the coal (rail car) unloading system from a SOP permit issued on August 31, 2010 (50396-31) into the Title V. The August 31, 2010 (50396-31) SOP was superseded by the SOP issued on July 18, 2012 (50396-34). These requirements have been included in Condition V, A. nos. 91 to 95 of the Title V permit.

On June 21, 2012 (50396-35), Dominion submitted the Phase II Acid Rain Permit Application for the renewal of the Acid Rain Permit for the Chesterfield Power Station. These requirements are included in Section XVII of the Title V permit.

On September 12, 2012 (50396-36), Dominion requested that DEQ place the requirements for the refined coal operations from a new source review permit issued on May 4, 2011 (50396-32) into the Title V. These requirements are included in Section VI of the Title V permit. This action also includes the information from the 50396-16 request.

#### Standard Testing Methods

The Title V permit contains testing requirements listed in the applicable state permits.

#### **Streamlined/Obsolete Requirements**

The particulate matter (PM) continuous emission monitor (CEM) required by paragraphs 85, 92 and 94 of the October 10, 2003 Consent Order has been installed and these references have been removed from the draft Title V renewal.



The Optimization Study required by Paragraph 79 of the Consent Decree was completed by Dominion on April 6, 2009 and this requirement has been removed from the draft Title V renewal.

The notification of opacity observations of the coal crushers (ES-9e, ES-9f) to EPA, Region III (condition no. 13 of the 01/08/04 NSR) has been submitted by Dominion and this requirement has been removed from the draft Title V renewal.

The testing of affected equipment and the report of the test required by NSPS Subpart OOO was completed by Dominion on July 26, 2008 to July 31, 2008 and this requirement has been removed from the draft Title V renewal.

#### **STATE ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

Odor (9 VAC 5 Chapter 40, Article 2)  
State toxics rule (9 VAC 5 Chapter 60)  
(9 VAC 5-80-490 and 9 VAC 5-80-700)

#### **FUTURE APPLICABLE REQUIREMENTS**

There are no future applicable requirements.

#### **INAPPLICABLE REQUIREMENTS**

MACT Subpart YYYY-Stationary Combustion Turbines- Since the turbine Units, ES-7 and ES-8 meet the existing stationary source definition in 63.6090(a)(1) (i.e. constructed or reconstructed prior to January 14, 2003), then these turbine units do not have to meet the requirements of MACT Subparts YYYY and A according to 63.6090(b)(4).

MACT Subpart DDDDD-Industrial, Commercial, Institutional, and Process Heaters-The boilers, ES-3, ES-4, ES-5, ES-6, are each an electric utility steam generating unit as defined in 63.7575 and therefore, are exempt from the requirements of MACT Subpart DDDDD according to 63.7491(c).

NSPS Subpart D-Fossil Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971-The boilers, ES-3, ES-4, ES-5, ES-6, were each constructed prior to the NSPS applicability date of August 17, 1971 and each have not been modified since construction. Therefore, each one is not applicable to the requirements of NSPS Subpart D.

NSPS Subpart Da-Fossil Fuel Fired Steam Generators for Which Construction Commenced After September 18, 1978-The boilers, ES-3, ES-4, ES-5, ES-6, were each constructed prior to

the NSPS applicability date of September 18, 1978 and each have not been modified since construction. Therefore, each one is not applicable to the requirements of NSPS Subpart Da.

The turbines, ES-7 and ES-8, are also not applicable to the requirements of NSPS Subpart Da because each turbine meets the exemption requirements listed in 60.40Da(b)(1) and 60.40Da(b)(2) which are that each turbine is rated below the 250 MMBTU/hr applicable heat input and each turbine was constructed prior to the applicability date of February 28, 2005.

NSPS Subpart Db-Industrial, Commercial, Institutional Steam Generating Units-The boilers, ES-3, ES-4, ES-5, ES-6, were each constructed prior to the NSPS applicability date of June 19, 1984 and each have not been modified since construction. Therefore, each one is not applicable to the requirements of NSPS Subpart Db.

NSPS Subpart Dc-Small Industrial, Commercial, Institutional Steam Generating Units-The boilers, ES-3, ES-4, ES-5, ES-6, were each constructed prior to the NSPS applicability date of June 9, 1989 and each have not been modified since construction. In addition, each boiler has a maximum heat input capacity greater than 100 MMBTU/hr. Therefore, each one is not applicable to the requirements of NSPS Subpart Dc.

NSPS Subpart Kb-Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984-The storage tank, Unit IS-5, is not applicable to this NSPS because the fuel oil that is stored in it has a maximum vapor pressure less than those listed in 60.110b(b).

NSPS Subpart KKKK-Stationary Combustion Turbines- The turbines, ES-7 and ES-8 are not applicable to this Subpart because they were installed prior to the February 18, 2005 applicability date.

NSPS Subpart OOO-Non-Metallic Mineral Processing Plants- The coal grinders/crushers and accompanying screens/conveyors (Units ES-9a, ES-9c, ES-9d, ES-9e, ES-9f and ES-10) are not subject to this Subpart since coal is not considered to be a nonmetallic mineral.

## **COMPLIANCE PLAN**

The permittee is subject to the U.S. EPA Consent Decree issued by the United States District Court, Eastern District of Virginia, Civil Action No. 03-CV-517-A and 03-CV-603-A, dated October 10, 2003.. The applicable requirements are found throughout the Title V permit. This Consent Decree requires Virginia Power install new pollution control equipment and upgrade existing equipment at the Chesterfield plant and other plants in Virginia and West Virginia. The Consent Decree requires the installation of flue gas desulfurization technology (FGD) on unit ES-5 by October 12, 2012 and on unit ES-6 by January 1, 2010. The FGD has been installed on unit ES-6. The Consent Decree requires the installation of selective catalytic reduction (SCR) on unit ES-4 by January 1, 2013, on unit ES-5 by January 1, 2012 and on unit ES-6 by January 1, 2011. Dominion has installed the SCRs on each unit.

## INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
08-FO-TK-1	Fuel Oil Storage Tank	9 VAC 5-80-710 B	VOC	11,256,000 gallons
00-FH-TK-1	Diesel Fuel Storage Tank	9 VAC 5-80-720 B	VOC	12,300 gallons
00-FH-TK-2	Gasoline Tank	9 VAC 5-80-710 B	VOC	5,000 gallons
00-WO-TK-1	Used Oil Storage Tank	9 VAC 5-80-720 B	VOC	5,000
Condensate Tanks	Natural Gas Condensate Tanks	9 VAC 5-80-720 B	VOC	400 gallons
Non Portable Tanks	Non Portable Petroleum Storage Tanks	9 VAC 5-80-720 B	VOC	varies
Portable Tanks	Portable Petroleum Storage Tanks	9 VAC 5-80-720 B	VOC	varies
Inside Tanks	Petroleum Storage Tanks located inside buildings	9 VAC 5-80-720 B	VOC	varies
Propane Tank	Propane Storage Tank	9 VAC 5-80-720 B	VOC	18,000 gallons

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-490 C, E and F.

(9 VAC 5-80-110 and 9 VAC 5-80-720)

## PHASE II ACID RAIN ALLOWANCES AND REQUIREMENTS

The Chesterfield Power is a utility owned facility and is subject to 40 CFR 72.1 and 9 VAC 5-80-360 regarding federal operating permits for acid rain sources. On January 1, 2008 (50396-22) DEQ issued a Title IV Phase II acid rain permit that renewed the Title IV acid rain permit issued on January 1, 2003 (50396-6). DEQ has incorporated the January 1, 2008 acid rain permit (50396-22) into the Title V permit in Condition XIV.

## **NO<sub>x</sub> ALLOWANCE BUDGET TRADING PERMIT REQUIREMENTS**

The NO<sub>x</sub> Budget language has been removed because on January 1, 2009, the CAIR NO<sub>x</sub> ozone season program was implemented which replaced the NO<sub>x</sub> Budget Plan.

## **CLEAN AIR INTERSTATE RULE (CAIR) PERMIT REQUIREMENTS**

On December 23, 2008, the U.S. Court of Appeals for the District of Columbia reversed its previous decision concerning the vacated CAIR ruling, and remanded the rule (CAIR) to EPA. This action means the CAIR regulations remain in effect until EPA provides another regulation. These requirements were added to the Title V permit in Condition XVI.

The current affected CAIR units will be subject to the Cross-State Air Pollution Control Rule (CSAPR) (effective October 7, 2011) which replaces the Clean Air Interstate Rule (CAIR) on January 1, 2012. Virginia at this time will implement the CSAPR requirements through the federal implementation plan (FIP) as per Chapter 291 of the 2011 Virginia Acts of Assembly and 40 CFR 97.

On August 21, 2012, the U.S. Court of Appeals for the District of Columbia vacated the 2011 Cross-State Air Pollution Rule (CSAPR) in *EME Homer City Generation, L.P. v. EPA*, No. 11-1302 (D.C. Cir. 2012). In a memorandum to EPA Air Division Directors on November 19, 2012, Gina McCarty, EPA Assistant Administrator, stated that EPA has filed a petition for a rehearing of the Court's decision. McCarty said that CSAPR has been stayed and the 2005 Clean Air Interstate Rule (CAIR) remains in effect, until a Court decision has been made.

## **CONFIDENTIAL INFORMATION**

There is no confidential information in the Title V permit.

## **PUBLIC PARTICIPATION**

The proposed permit was placed on public notice in *Style Weekly* on July 31, 2013. The 30-day state review period, which ended on September 2, 2013, and the 45-day EPA comment, which ended on September 16, 2013 ran concurrently.

The 30-day state review period which ended on September 2, 2013 was Labor Day, a holiday, so the DEQ extended the 30-day state comment period to the following day, September 3, 2013. DEQ received comments from Dominion dated August 30, 2013 on September 3, 2013. These comments were received during the 30-day state comment period. The Dominion comments and the DEQ responses are provided in the attachments.

DEQ did not receive any other comments during the 30-day state comment period or the 45-day EPA comment period.

Attachments:

- A. 2012 Annual Emissions Update Report
- B. Best Management Practices Plan
- C. U.S. EPA Consent Decree issued by the United States District Court, Eastern District of Virginia, Civil Action No. 03-CV-517-A and 03-CV-603-A, dated October 10, 2003
- D. Acid Rain Permit issued on January 1, 2008
- E. Proposed CAM Plan – June, 2011
- F. Dominion Comments and DEQ Response to Draft Title V Permit